

VICTORY MOTORCYCLE DIVISION, POLARIS INDUSTRIES INC.

EXECUTIVE ORDER M-036-0012 New On-Road Motorcycles

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2, and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the engine and emission control systems produced by the manufacturer are certified as described below for four-stroke gasoline-powered motorcycles. Production vehicles shall be in all material respects the same as those for which certification is granted. The manufacturer shall ensure that character "C" or "3" is not used in the eighth (8th) position of the vehicle identification number (VIN) of all vehicles in the engine family listed below. Violation of this VIN provision may result in incorrect registration of the vehicles.

MODEL YEAR	ENGINE FAMILY	EVAPORATIVE FAMILY	ENGINE DISPLACEMENT (cc)	CLASS	
2007	7VMCC1.634ME	7VMCE0022DCP	1634	EU	
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		VEHICLE MODELS *= not (equivalent inertia mass in kilograms, kg) applicab			
	ı, 2TWC		Kingpin Vegas Eightball Hammer Jackpot Ness Jackpot (440 kg, all models)		
ABBREVIATIONS: HO2S=heated O2S	TOD	stion AID=eacondary air iniaction PA	catalyst WUTWC/WUOC=warm-up TWC/OC IR≖pulsed AIR MFI=multi port fuel injection CAC=charge air cooler 2 (prefix)=parallel	O2S=oxygen sensor SFI=sequential MFI (2) (suffix)=in series	

The following are the exhaust hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) standards, or designated HC+NOx standard as applicable, and certification levels in grams per kilometer (g/km), and evaporative standard and certification level in grams per test (g/test) for this engine/evaporative family. The designated HC+NOx standard, as applicable, shall be listed on the permanent tune-up label.

				EARLY COMPI	LIANCE CREDIT MUL	TIPLIER	*
	HC+NOx ((g/km)		CO	(g/km)	EVAPOR	ATIVE (g/test)
CORPORATE AVERAGE STANDARD	DESIGNATED STANDARD	(DIRECT) STANDARD	CERTIFICATION LEVEL	STANDARD	CERTIFICATION LEVEL	STANDARD	CERTIFICATION LEVEL
*	*	1.4	1.1	12	5	2.0	0.7

BE IT FURTHER RESOLVED: That certification to the designated HC+NOx standard listed above, as applicable, is subject to the following terms, limitations and conditions:

The designated HC+NOx standard shall be the exhaust emission limit for this engine family and cannot be changed during the model year. It serves as the HC+NOx exhaust standard applicable to this engine family for determining compliance with Title 13, California Code of Regulations, Sections 1958(b) and 2101.

BE IT FURTHER RESOLVED: That for certification to the HC+NOx standard, or designated standard as applicable, listed above, the listed vehicle models are granted an early-compliance credit multiplier as indicated above pursuant to Title 13, California Code of Regulations, Section 1958(g).

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all materials required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That because the listed motorcycles are certified to 0.2 grams per test or more below the applicable evaporative standard, the vehicles are exempt from complying with the Air Resources Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" pursuant to Executive Order G-70-16-E.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Vehicles in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

___day of May 2006.

Allen Lyons, Chief Mobile Source Operations Division MY 2007 Victory Motorcycle Division, Polaris Industries Inc.

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Issued: Revised:

Motorcycle Engine Family Information Form

1. 2.	Manufacturer: Victory Motorcycle Division, Polaris Industries Inc. Certification Contact Person, address, phone, and fax:
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Kannan Govindasamy, Regulatory Engineer, Victory Motorcycle Division, Polaris Industries Inc. 7290 East Viking Blvd, Wyoming, MN 55092

T: 651-408-7325 F: 651-408-7603

- 3. Model Year: 2007
- 4. Process Code: <u>New</u> (new, correction, revision, r/c, f/f. etc.)
- 5. Engine Family:

Engine Code: 7VMCC1.634ME
7 = model year = 7 = 2007
VMC = mfg code = Victory Motorcycle
Division, Polaris Industries Inc.
C = family type = C = on-road motorcycle
1.63 = displacement = 1.63 = 1634 cc
4=engine technology=4 = 4-stroke spark ignition
M = fuel system = M = multi-port/seq EFI
E = post combustion = E = catalyst

Evap Family Code: 7VMC E0022DCP
7 = model year = 7 = 2007
VMC = mfg code = Victory Motorcycle
Division, Polaris Industries Inc.
E = family type = E = evaporative
0022=evap canister capacity=0022 wk capacity
D = Evap vent type = D = direct
C=storage medium=C=single charcoal canister
P = purge method= P = ported (throttle port)

- 6. Emission Control System: SFI/2TWC
- 7. Calif. Designated Standard: <u>HC + NOx 1.4</u> g/km; <u>CO 12 g/Km</u>

- 8. Projected Annual Sales:

 CONFIDENTIAL

 Total California Sales:
- New Technology ____ Yes _X No
 If yes, cite the correspondence or reference the Submittal document:
- 10. Displacement: 1634 cc (100 cu in)
- 11. Number of Cylinders: 2
- 12. Cylinder Arrangement: 50° V-Twin
- 13. Cylinder Head Configuration: SOHC / 4 valve
- 14. Type of Cooling: Air & Oil
- 15. Combustion Cycle: 4-Stroke, S.I.
- 16. Method of Aspiration: Natural
- 17. Fuel System: SFI
- 18. Number of Catalytic Converters: 2

EPA Cert# TVMCC1.634 ME-001

19. Adjustable Paramet	ters: None		36.3.3.4
Parameter(s)	Adjustable Range (or NA)	Tamper Resistance Method (or NA)	Method Approved
<u></u>	(OI IVA)	(0,112)	
20 AECDs In the Emi	ssion Control Systems: N	one	
Exhaust System		Evaporative System	
AECDs In System:		AECDs In System:	
•			·
	-		
	011	Date: 5-25-06	
Processed b	We the state of th	Date:	
Processeu m	9. 1100		
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Engine Family: 7VMCC1.634ME

Motorcycle Test Information Form

27	Are you carrying over test results from a previously certified family? X Yes No	-
21.	a) If yes, indicate family name: 6POLC1.634ME/6POLE0022DCP.	
	a) If yes, indicate fairny name. of Observed as a little date is being corried by	er?

b) Is the family being certified identical to the family from which the data is being carried over? Yes

-, -	
28. Model Designation of Test Vehicle: Kingpin	36. Road Load: <u>163.7</u>
29. Test Information Number: V100KP06CAV1	37. Inertia Mass: 440kg
30. Vehicle ID: <u>5VPCB26D963011715 / 120289000017</u> .	38. N/V: <u>23.41 rpm/kph</u>
31. Service Accumulation Duration: 8063 km	 EVAP. Bench Test Method Approved: Date: N/A
32. Maximum Rated Power: 62.7 Kw @ 5500 RPM	Reference: <u>N/A</u>
33. Displacement: 1634 cc	40. Unscheduled Maintenance: Yes X N
34. Certification Fuel: <u>Indolene</u>	41. If yes, Vehicle Log provided:

MCVT1634D2006BK

42. Exhaust Emission Deterioration Factors: Vehicle ID: V100BD-06V-105 (49 state DF data)

35. Test Data Set: V100KP06CAV1 /

Midde Dille	Deterioration account		Emission Va	lues
Test Number	System Kilometers	HC 1	NOx	CO
3	3469	0.601	0.453	6.469
	8006	0.734	0.487	12.469
6	11544	0.487	0.520	3.051
7	14931	0.55	0.531	3.728
Interpolated V	Values at <u>8,000</u> km: Ho	C = 0.608	NOx = 0.487	CO = 7.069
	Values at <u>30,000</u> km: F		NOx = 0.643	CO = -2.311

Regular DF	X (multi- plicative)
Modified DF Specify vehicle	; ID

43. Emission Test Results: Vehicle ID: 5VPCB26D963011715 / 120289000017 (CA configuration 5000 mile test)

onfiguration Official Test		Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Results						 	
g/km	co	3.797	12.660	14.104	4.018	5.811	4.740
g/km	CO^2	146	124	124	133	132	129
g/km	нс	0.468	0.645	0.707	0.469	0.529	0.508
g/km	NOx	0.283	0.357	0.362	0.376	0.410	0.420
g/km	Evap.						0.42

	Deterioration Factors
(X)	1
(X)	1
(+)	0.29

44.	Certification Levels:			 T	
	g/km	CO	(4.740)		
	g/km	HC+	(1.062)		
		NOx		 	
	g/test	Evap.	(0.71)	 	

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Engine Family: 7VMCC1.634ME

Evaporative Emission Information

- 45. Evaporative Family: 7VMCE0022DCP
- 46. Number of Evap. Canisters: One
- 47. Design Working Capacity: 22 grams
- 48. Configuration: Plastic canister
- 49. Number of Storage Areas: One Canister
- 50. Fuel Reservoir Volume: N/A
- 51. Vent System Configuration: Throttle Ported Purge Control
- 52. Nominal Tank Capacity: 4.5 U.S. gallons

- 53. Engine Displacement Class: III
- 54. Storage Medium Composition: Activated charcoal
- 55. Evap. Canister Medium Volume: 400 cc
- 56. Evap. Family Sales:
- 57. Engine Code: N/A
- 58. Evap. Emission Family Code: 7VMCE0022DCP
- 59. Evap. Emission Family Group: N/A
- 60. Overall Evap D.F. = 0.29

Bench DF

- 61. Test Vehicle ID:
- 62. Test Results:

Test Number	System Kilometers	Evap. Emission Values (g/test)
1		
2		<u> </u>
3		
4		
5		1
6		
7		
Interpolated V	alues atkm: =	
Extrapolated V	/alues atkm:=	
Bench Test D.l	F. = <u>0.5 (assigned)</u>	

Check One:			
Regular DF:			
Modified DF:			
If different vehicle			
specify the vehicle ID			

Vehicle DF

- 63. Test Vehicle ID: 5VPTD16D123000111
- 64. Test Results.

Test Number	System Kilometers	Evap. Emission Values (g/test)
1	3544	0.348
2	8116	0.404
3	8130	0.416
4	15062	0.420
Interpolated V	Values at <u>15,000</u> km: =	4327
Extrapolated	Values at <u>30,000</u> km: =	.5177
Vehicle Test I	0.F. = 0.085	

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Issued: Revised:

Engine Family: 7VMCC1.634ME

Motorcycle Model Summary Form

65. Model Designation	66. Worst Case	67. Disp. (cc)	68. Bore / Stroke (mm)	69. Basic Ignition Timing (degrees)	70 Power (kW)	71 Rated Speed (RPM)	72 Rated Torque (Nm)	73. Rated Speed (RPM)
Kingpin		1634	101 x 102	N/A	62.7	5500	139	2500
Vegas	 	1634	101 x 102	N/A	62.7	5500	139	2500
Eightball		1634	101 x 102	N/A	62.7	5500	139	2500
Hammer		1634	101 x 102	N/A	62.7	5500	139	2500
Jackpot	+	1634	101 x 102	N/A	62.7	5500	139	2500
Ness Jackpot	1	1634	101 x 102	N/A	62.7	5500	139	2500

65.	74.	75.	76	77	78	79. Trans.	80 N/V
Model Designation	EIM (kg)	Loaded Vehicle Weight Range (kg)	Road Load	Total Vehicle Mass (kg)	Full Weight with All Factory Options (kg)	Type	14/ V
Kingpin	440	436-445	163.7	311	332	6 speed constant mess	23.41 rpm/kph
Vegas	440	436-445	163.7	302	314	6 speed constant mess	23.51 rpm/kph
Eightball	440	436-445	163.7	302	314	5 speed constant mess	23.51 rpm/kph
Hammer	440	436-445	163.7	316	328	6 speed constant mess	23.37 rpm/kph
Jackpot	440	436-445	163.7	302	314	6 speed constant mess	23.37 rpm/kph
Ness Jackpot	440	436-445	163.7	302	314	6 speed constant mess	23.37 rpm/kph